

33. (Once Amended) A method for assessing chemosensitivity of malignant or hyperproliferative cells consisting essentially of the steps of:

- a) harvesting a specimen of a patient's tissue or cells;
- b) separating mechanically said specimen into cohesive multicellular particulates with a particle size distribution between about  $0.25 \text{ mm}^3$  and about  $1.5 \text{ mm}^3$ ;
- c) growing a tissue culture monolayer from said cohesive multicellular particulates;
- d) inoculating cells from said monolayer into a plurality of segregated sites and at least one untreated control site, in reproducible numbers; and
- e) treating each of said plurality of segregated sites with a treating means, determining cell number in each of said plurality of segregated sites relative to said at least one untreated control site, followed by correlating chemosensitivity of the cells in said plurality of sites to concentration of exposure to said at least one treating means.

34. (Once Amended) A method for assessing chemosensitivity of malignant or hyperproliferative patient cells comprising the steps of:

- a) harvesting a specimen of a patient's tissue or cells;
- b) mechanically separating said specimen into cohesive multicellular particulates having a particle size distribution between about 0.25 and about  $1.5 \text{ mm}^3$  with avoidance of further size reduction of the particles thereafter;
- c) growing a tissue culture monolayer from said cohesive multicellular particulates;